



State of California—Health and Human Services Agency
Department of Health Services



DIANA M. BONTÁ, R.N., Dr. P.H.
Director

GRAY DAVIS
Governor

TUBERCULOSIS IN CATTLE (BOVINE TB)

Protecting Human Health

Bovine TB was officially eradicated from California in 1999. In May 2002, however, bovine TB was identified in a herd of dairy cattle in Tulare County. State and federal veterinarians are conducting an intensive investigation to determine how this disease was introduced into the dairy and they are working to once again eliminate it from the State. In addition, there is an ongoing public health investigation by the Tulare County Health Department in collaboration with the California Department of Health Services to evaluate people who may have been exposed to bovine TB in this herd.

What is bovine TB?

Bovine TB is a type of tuberculosis that can affect both humans and animals, such as cattle, deer, and pigs. Bovine TB is caused by a germ called *Mycobacterium bovis*, which is very similar to the agent that usually causes tuberculosis in humans, and it causes similar symptoms. In humans, bovine TB most often affects the lungs, lymph nodes or organs of the digestive system. It is a curable disease.

What are the symptoms of bovine TB in people?

Symptoms of bovine TB disease will depend on what part of your body is affected. In general, symptoms may include a productive cough, fever, night sweats, chest pain, or loss of appetite. You may have other symptoms as well, if other parts of your body are affected.

How can I catch bovine TB?

The general public has a very low risk of coming into contact with bovine TB. Bovine TB is transmitted from cattle to humans primarily by consumption of raw (unpasteurized) milk or raw milk products containing the bacteria or by prolonged exposure to bacteria in the air in the immediate vicinity of live infected cattle or their carcasses. On very rare occasions, bovine TB is passed to a human when bacteria from the infected animal get into a cut on the skin. Transmission of

bovine TB between cattle and humans occurs infrequently.

Pasteurized milk and cheese pose no risk to people because the pasteurization process kills the tuberculosis bacteria. If there is evidence of bovine TB infection at slaughter, the carcass is safely disposed of and the meat does not enter the food chain.

What happens if I'm infected with bovine TB?

People with bovine TB "infection" have the germ that causes TB in their bodies, but they do not feel sick and they cannot spread the germs to anyone else. In fact, most people infected with bovine TB will never get sick from the TB germs. However, some people who have TB infection will go on to develop bovine TB "disease," especially those who are very young or very old, or those with a weakened immune system. People who are infected with bovine TB can take medicine to prevent them from getting sick with disease.

People with bovine TB disease usually feel sick and may spread germs to others. Bovine TB disease can cause permanent damage to the body and can lead to death. It is important for people with bovine TB disease to be treated with medications, to protect their health and the health of the people around them. People with TB (human or bovine) can be cured!

How do I know I've been infected with bovine TB?

The first step to determine if you've been exposed to bovine TB is to have a TB skin test. The decision to have a TB skin test is completely voluntary. You can have a TB skin test at your local health department or at your private physician's office. Once the skin test is applied, you must return in 2 to 3 days to have the test read and interpreted. Your health care provider will measure the size of your reaction to the test, and will discuss the results with you.

A negative test usually means a person is not infected. However, it takes from 2 to 10 weeks after an exposure to TB before your skin test will react if you have been infected, so your health care provider may recommend that you have a repeat TB skin test in a couple of months to make sure it remains negative.

In general, a positive TB skin test is a good indication that you have been infected with TB at some time in your life. The TB skin test cannot tell the difference between the various types of TB (human or bovine), nor can it tell if your infection is recent, or from a long time ago. A positive test just tells you that you need further evaluation to determine whether you have TB infection or disease.

If you have a positive skin test, you will receive a chest X-ray, and a sample of sputum (material you cough out of your chest) or other material such as urine or stool may be collected to determine if you have TB disease. Depending on your history and the test results, you may be prescribed antibiotics to cure the infection or disease. If your health insurance policy does not cover the charge for needed services or if you don't have health insurance, contact your local health department.

How is bovine TB treated in humans?

Bovine TB infection or disease is treated with specific antibiotics that kill the tuberculosis bacteria. The treatment will consist of taking these antibiotics for a period of 6 to 12 months. A treatment plan will be made for each individual patient.

Who should be tested for bovine TB?

As stated earlier, the general public has a very small risk of coming into contact with bovine TB. We recommend that testing related to this bovine TB exposure at a California dairy be limited to the individuals in closest contact with animals from the infected herd or their carcasses, and individuals who may have consumed raw milk from infected cattle.

Testing is therefore recommended only for ranch staff, veterinarians, and other workers who have regular contact with the herd, individuals who have consumed raw milk from infected cattle, and other persons with significant contact to these infected cattle. These individuals are being identified by the local health department and are currently being tested. Once testing of these people with the greatest amount of contact has been completed, the health department will review the results and

make a decision about the need to test others with less exposure to the infected cattle.

Individuals who do not fit into the above categories but who are still concerned about exposure to bovine TB may wish to discuss their risk and the need for a TB skin test with their private health care providers.

How can I avoid catching bovine TB?

Use only pasteurized milk and milk products. If you work in an occupation that requires you to come into close contact with known infected animals or their carcasses, ask your employer about what infection control precautions might be needed to protect you from airborne TB bacteria.

What is the California Department of Health Services doing about bovine TB?

The California Department of Health Services (DHS) staff are currently assisting the Tulare County Health Department to identify and assess people who may have been exposed to cattle with bovine TB. DHS is working with other state agencies to provide the public with information about bovine TB and how to prevent it.

Where can I get more information on tuberculosis?

The best source of information on TB in your area is your local health department. If you live in Tulare County, please call the Tulare County Health Department TB Controller, Dr. Michael MacLean, if you have questions about bovine TB in humans. He can be reached at (559) 737-4660.

You can also visit these websites for more information:

California Department of Health Services

<http://www.dhs.ca.gov/ps/dcdc/TBCB/tubindex.htm>

California Department of Food and Agriculture

http://www.cdffa.ca.gov/ahfss/ah/tb_info.htm

Centers for Disease Control and Prevention

<http://www.cdc.gov/nchstp/tb/faqs/qa.htm>

For more information on protection from bovine TB or other diseases transmitted between animals and humans, contact the DHS Veterinary Public Health Section at (916) 327-0332.